

CLAIMS

- 1 1. An apparatus comprising:
2 at least one processor;
3 a memory coupled to the at least one processor; and
4 a database query processor residing in the memory and executed by the at least
5 one processor, the database query processor processing a first query to generate a first
6 result set by interrogating a database, and, if a second query may be satisfied by the first
7 result set, generating a second result set from the first result set without caching the first
8 result set and without interrogating the database for the second query.

- 1 2. The apparatus of claim 1 wherein the database query processor processes the first
2 query, and while processing the first query evaluates at least one other query that is
3 received during the processing of the first query to determine whether the at least one
4 other query is satisfied by the first result set, wherein the database query processor returns
5 the first result set to the first query and uses the first result set to generate at least one
6 other result set for any of the at least one other query that is satisfied by the first result set.

- 1 3. The apparatus of claim 1 wherein the database query processor delays processing
2 a plurality of received queries, groups compatible received queries together, generates a
3 new query for each group that will produce a result set that will satisfy all queries in the
4 group, processes each new query, and generates from the result set of each new query at
5 least one other result set for queries in the group corresponding to the new query.

1 4. An apparatus comprising:
2 at least one processor;
3 a memory coupled to the at least one processor; and
4 a database query processor residing in the memory and executed by the at least
5 one processor, the database query processor processing a first query to generate a first
6 result set, and while processing the first query evaluating at least one other query that is
7 received during the processing of the first query to determine whether the at least one
8 other query is satisfied by the first result set, the database query processor returning the
9 first result set to the first query and uses the first result set to generate at least one other
10 result set for any of the at least one other query that is satisfied by the first result set.

- 1 5. An apparatus comprising:
2 at least one processor;
3 a memory coupled to the at least one processor; and
4 a database query processor residing in the memory and executed by the at least
5 one processor, the database query processor delaying processing a plurality of received
6 queries, grouping compatible received queries together, generating a new query for each
7 group that will produce a result set that will satisfy all queries in the group, processing
8 each new query, and generating from the result set of each new query at least one other
9 result set for queries in the group corresponding to the new query.
- 1 6. The apparatus of claim 5 wherein the database query processor delays processing
2 the plurality of received queries for a predetermined time period.
- 1 7. The apparatus of claim 5 wherein the database query processor delays processing
2 the plurality of received queries until a predetermined number of the plurality of queries
3 has been received.

1 8. A method for processing a plurality of database queries, the method comprising
2 the steps of:
3 processing a first query to generate a first result set;
4 receiving a second query; and
5 if the second query may be satisfied by the first result set, generating a second
6 result set from the first result set without caching the first result set and without
7 interrogating the database.

1 9. The method of claim 8 further comprising the steps of:
2 while processing the first query, evaluating at least one other query that is
3 received during the processing of the first query to determine whether the at least one
4 other query is satisfied by the first result set;
5 returning the first result set to the first query; and
6 using the first result set to generate at least one other result set for any of the at
7 least one other query that is satisfied by the first result set.

1 10. The method of claim 8 further comprising the steps of:
2 delaying processing a plurality of received queries;
3 grouping compatible received queries together;
4 generating a new query for each group that will produce a result set that will
5 satisfy all queries in the group;
6 processing each new query; and
7 generating from the result set of each new query at least one other result set for
8 queries in the group corresponding to the new query.

1 11. A method for processing a plurality of database queries, the method comprising
2 the steps of:
3 processing a first query to generate a first result set;
4 while processing the first query, evaluating at least one other query that is
5 received during the processing of the first query to determine whether the at least one
6 other query is satisfied by the first result set;
7 returning the first result set to the first query; and
8 using the first result set to generate at least one other result set for any of the at
9 least one other query that is satisfied by the first result set.

1 12. A method for processing a plurality of database queries, the method comprising
2 the steps of:

3 delaying processing a plurality of received queries;
4 grouping compatible received queries together;
5 generating a new query for each group that will produce a result set that will
6 satisfy all queries in the group;
7 processing each new query; and
8 generating from the result set of each new query at least one other result set for
9 queries in the group corresponding to the new query.

1 13. The method of claim 12 wherein the step of delaying processing the plurality of
2 received queries delays for a predetermined time period.

1 14. The method of claim 12 wherein the step of delaying processing the plurality of
2 received queries delays until a predetermined number of the plurality of queries has been
3 received.

- 1 15. A program product comprising:
2 (A) a database query processor that processes a first query to generate a first result
3 set by interrogating a database, and, if a second query may be satisfied by the first result
4 set, the database query processor generates a second result set from the first result set
5 without caching the first result set and without interrogating the database for the second
6 query; and
7 (B) computer-readable signal bearing media bearing the database query processor.
- 1 16. The program product of claim 15 wherein the computer-readable signal bearing
2 media comprises recordable media.
- 1 17. The program product of claim 15 wherein the computer-readable signal bearing
2 media comprises transmission media.
- 1 18. The program product of claim 15 wherein the database query processor processes
2 the first query, and while processing the first query evaluates at least one other query that
3 is received during the processing of the first query to determine whether the at least one
4 other query is satisfied by the first result set, wherein the database query processor returns
5 the first result set to the first query and uses the first result set to generate at least one
6 other result set for any of the at least one other query that is satisfied by the first result set.
- 1 19. The program product of claim 15 wherein the database query processor delays
2 processing a plurality of received queries, groups compatible received queries together,
3 generates a new query for each group that will produce a result set that will satisfy all
4 queries in the group, processes each new query, and generates from the result set of each
5 new query at least one other result set for queries in the group corresponding to the new
6 query.

- 1 20. A program product comprising:
- 2 (A) a database query processor that processes a first query to generate a first result
- 3 set, and while processing the first query, the database query processor evaluates at least
- 4 one other query that is received during the processing of the first query to determine
- 5 whether the at least one other query is satisfied by the first result set, the database query
- 6 processor returning the first result set to the first query and uses the first result set to
- 7 generate at least one other result set for any of the at least one other query that is satisfied
- 8 by the first result set; and
- 9 (B) computer-readable signal bearing media bearing the database query processor.
- 1 21. The program product of claim 20 wherein the computer-readable signal bearing
- 2 media comprises recordable media.
- 1 22. The program product of claim 20 wherein the computer-readable signal bearing
- 2 media comprises transmission media.

- 1 23. A program product comprising:
2 (A) a database query processor that delays processing a plurality of received
3 queries, groups compatible received queries together, generates a new query for each
4 group that will produce a result set that will satisfy all queries in the group, processes
5 each new query, and generates from the result set of each new query at least one other
6 result set for queries in the group corresponding to the new query; and
7 (B) computer-readable signal bearing media bearing the database query processor.
- 1 24. The program product of claim 23 wherein the computer-readable signal bearing
2 media comprises recordable media.
- 1 25. The program product of claim 23 wherein the computer-readable signal bearing
2 media comprises transmission media.
- 1 26. The program product of claim 23 wherein the database query processor delays
2 processing the plurality of received queries for a predetermined time period.
- 1 27. The program product of claim 23 wherein the database query processor delays
2 processing the plurality of received queries until a predetermined number of the plurality
3 of queries has been received.

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